

O ₂ /N ₂					
CO in N ₂	0.0020	381.3	2.198	43.11	0.4672
N ₂	1.076	1.308	4.250	1.673	0.6574

	ZnO + 2.5% F2889	ZnO + 10% F3876	SnO ₂ + 5% F2889	WO ₃ + 10% F3876
NO ₂ in N ₂	0.5810	0.7944	0.6270	0.6055
NO ₂ in O ₂ /N ₂	1.141	1.176	0.8927	1.284
CO in N ₂	0.0020	0.0016	0.0043	0.0122
N ₂	0.1054	0.1338	0.2780	0.4862

Example 9

- This example illustrates the use of the AC impedance technique for the measurement of the response of 16 semiconducting materials in the presence of 4 gas compositions at 800°C. The signals listed in the table are from the AC impedance technique. The signals are the ratios of the magnitudes of the impedances of the materials when exposed to the gas compositions shown to the magnitudes of the impedances in 10,000 ppm O₂ in N₂. The gases used were 200 ppm NO₂ in N₂, 200 ppm NO₂ & 10,000 ppm O₂ in N₂, 1000 ppm CO in N₂, and N₂.

15

Table 9

	ZnO	WO ₃	NiFe ₂ O ₄	SnO ₂	TiO ₂	MnTiO ₃	NiO	SrNb ₂ O ₆
NO ₂ in N ₂	0.3980	0.5737	0.6710	0.4050	0.4859	1.981	1.917	0.7555
NO ₂ in O ₂ /N ₂	1.594	1.117	4.795	6.456	1.052	1.497	0.8529	0.9928
CO in N ₂	0.688	0.2610	0.0642	0.2349	0.0014	123.2	5.129	0.0144
N ₂	0.3070	0.5103	0.5339	0.2852	0.3093	2.882	2.124	0.5167

	CeVO ₄	1% Nb:TiO ₂	FeTiO ₃	Pr ₆ O ₁₁	SrTiO ₃	Ba ₂ Cu ₂ O ₅	CuMnFe ₂ O ₄	LaFeO ₃
NO ₂ in N ₂	1.013	0.3280	0.6799	1.569	0.0049	4.061	2.869	1.252
NO ₂ in O ₂ /N ₂	1.058	1.006	0.9982	1.010	0.0260	0.9811	0.9389	1.326
CO in N ₂	2.165	0.0047	0.2831	3530	1.004	216.0	0.8810	63.36
N ₂	1.075	0.1960	0.5600	2.999	1.048	7.445	3.413	1.612